

REMARKS

I. Status of the Application

Claims 9-28 are pending in this application. Claims 12, 13, 15, 19 and 22 have been cancelled. In the September 2, 2008 Office action, the Examiner:

A. Rejected claims 9-11 and 14 under 35 U.S.C. §103(a) as being unpatentable over US Patent No. 7408876 to Gupta et al. (“Gupta”) in view of US Patent No. 7383574 to Burrows et al. (“Burrows”);

B. Rejected claims 17, 18, and 20-24 under 35 U.S.C. §103(a) as being unpatentable over US Patent No. 6292492 to Bonomi et al. (“Bonomi”) in view of US Patent No. 587471 to Bass et al. (“Bass”); and

C. Rejected claims 25-28 under 35 U.S.C. §103(a) as being unpatentable over Bonomi in view of Bass.

In this response, applicants traverse the rejections of claims and respectfully request reconsideration in light of the following remarks.

II. Claim 9

In the Office Action, the Examiner rejected claim 9 as allegedly being obvious over Gupta in view of Burrows. Claim 9 includes the limitation that “the broadcast packet control unit [is] configured to operate in broadcast storm control mode if the obtained measure of the length of the at least one ingress queue rises above a first predetermined level **before the data packets are queued in the at least one ingress queue**, wherein the broadcast packet control

unit is configured to **only admit broadcast packets to the at least one ingress queue when not in broadcast storm control mode.**” For the reasons discussed below, neither Gupta nor Burrows, neither alone nor in combination, teaches, shows or suggests such limitations. Accordingly, Applicants submit that a prima facie case of obviousness has not been established with respect to claim 9.

In the office action, the Examiner cited Gupta as teaching all of the limitations of claim 9 except for “a broadcast packet control unit configured to operate in broadcast storm control mode if the obtained measure of the length of the at least one ingress queue rises above a first predetermined level before the data packets are queued in the at least one ingress queue, wherein the broadcast packet control unit is configured to only admit broadcast packets to the at least one ingress queue when not in broadcast storm control mode.” In order to supply this limitation, the Examiner cited Burrows. However, Applicants respectfully disagree with the Examiner’s assertion that Burrows discloses a broadcast storm control unit that operates in broadcast storm control mode based on ingress queue length before admitting packets to the ingress queue, and only admitting broadcast packets to the ingress queue when not in BSC mode.

Applicants agree that Gupta does not disclose “a broadcast packet control unit configured to operate in broadcast storm control mode if the obtained measure of the length of the at least one ingress queue rises above a first predetermined level before the data packets are queued in the at least one ingress queue, wherein the broadcast packet control unit is configured to only admit broadcast packets to the at least one ingress queue when not in broadcast storm control mode.” In supplying the limitation of the broadcast packet control

unit as claimed in claim 9, the Examiner cited the packet traffic monitor of Burrows as being configured to enter a broadcast storm control mode if the obtained measure of the length of the at least one ingress queue rises above a first predetermined level before the data packets are queued in the at least one ingress queue noting that “the packet monitor using the packet monitor queues at the source to determine the occurrence of a broadcast storm if excess requests packets are received in flight, col. 11, lines 18-31, lines 51-58, col. 13, lines 58-64 [of Burrows].” (Office Action, page 6).

Applicants disagree that Burrows teaches this aspect. Clearly in Burrows the discarding of packets occurs at the switch (col 4 39-45). Claim 9 requires the test for ingress queue length to be determined before a broadcast packet is admitted at the ingress port and stored in the ingress queue. In fact Burrows seem very much focussed on monitoring patterns relating to specific hosts and has nothing to do with testing the length of the ingress queue. At col. 10, lines 43-col. 11, line 8 it is clear that Burrows observes the number of broadcast packets within a given time period and if the count is over a threshold determines a broadcast storm is occurring. This is the same as the APAA (para 0004 of the present specification) and is clearly not relevant to claim 9. Also broadcast packets would always be admitted to the ingress port, but would only be discarded by the switch if it was determined the packets host was from an offending host. (col 8 line 24-58). Thus Burrows discloses a different test for broadcast storm control and implements broadcast storm control at a different point in the topology.

Accordingly, Applicants submit that neither Gupta nor Burrows, neither alone nor in combination, teaches, shows or suggests the limitation that “the broadcast packet control unit [is] configured to operate in broadcast storm control mode if the obtained measure of the

length of the at least one ingress queue rises above a first predetermined level **before the data packets are queued in the at least one ingress queue**, wherein the broadcast packet control unit is configured to **only admit broadcast packets to the at least one ingress queue when not in broadcast storm control mode**.” Therefore, Applicants submit that a prima facie case of obviousness has not been established with respect to claim 9 and that the obviousness rejection of claim 9 over the prior art should be withdrawn.

III. Claim 17

In the Office Action, the Examiner rejected claim 17 as allegedly being obvious over Bonomi in view of Bass. Claim 17 includes the limitation of “triggering a broadcast storm control mode in which broadcast storm control is performed **before the data packets are queued in the at least one ingress queue** if the measure of the length of the at least one ingress queue rises above a first predetermined level.” Thus, similar to claim 9, broadcast storm control in claim 17 is based on ingress queue length before the incoming data packets are queued. For the reasons discussed below, neither Bonomi nor Bass, neither alone nor in combination, teaches, shows or suggests such a limitation. Accordingly, Applicants submit that a prima facie case of obviousness has not been established with respect to claim 17.

In the office action, the Examiner cited Bonomi as teaching all of the limitations of claim 17 except for “triggering a broadcast storm control mode in which broadcast storm control is performed before the data packets are queued in the at least one ingress queue if the measure of the length of the at least one ingress queue rises above a first predetermined level.” In order to supply this limitation, the Examiner cited Bass. Applicants agree that Bonomi

does not disclose “triggering a broadcast storm control mode in which broadcast storm control is performed before the data packets are queued in the at least one ingress queue if the measure of the length of the at least one ingress queue rises above a first predetermined level.”

However, Applicants respectfully disagree with the Examiner’s assertion that Bass does disclose such a limitation.

Bass does not disclose the use of queues or measuring the length of an ingress queue to determine whether or not to enter a broadcast storm control mode. Bass uses counters to monitor the number of each class of broadcast packets, where the counters are regularly reset. (See Bass, col. 5, lines 33-45). According to Bass, when the counter for a given class is over a threshold, the switch discards the broadcast packet. (See Bass, col. 3, 18-28). *This is the same as the APAA (para 0004 of the present specification) and is clearly not relevant to claim 17.* There is no disclosure in Bass of entering broadcast storm control based on the length of an ingress queue.

The examiner points to col. 1, lines 25-43 of Bass as teaching buffer overrun, which allegedly discloses broadcast storm control based on ingress queue length. This portion of col. 1 of Bass does not teach broadcast storm control based on an ingress queue length (or buffer overruns for that matter). Also clearly the broadcast packet has already been admitted (step 50 Figure 2) since the counter will include that packet in its count, and thus broadcast storm control is not done before admission to an ingress queue. Similar to Burrows, Bass discloses a different test for broadcast storm control and implements broadcast storm control at a different point in the topology.

Accordingly, Applicants submit that neither Bonomi nor Bass, neither alone nor in

combination, teaches, shows or suggests the limitation of “triggering a broadcast storm control mode in which broadcast storm control is performed before the data packets are queued in the at least one ingress queue if the measure of the length of the at least one ingress queue rises above a first predetermined level.” Therefore, Applicants submit that a prima facie case of obviousness has not been established with respect to claim 17 and that the obviousness rejection of claim 17 over the prior art should be withdrawn.

IV. Claim 25

Claim 25 was rejected as being obvious over Bonomi in view of Bass. Claim 25 includes the limitation of “deleting at least some of the broadcast packets before admission to the ingress queue if the measure of the length of the at least one ingress queue rises above a first predetermined level.” Bonomi was cited as disclosing all of the limitations of claim 25 except for the above limitation. Bass was cited as disclosing “deleting at least some of the broadcast packets before admission to the ingress queue if the measure of the length of the at least one ingress queue rises above a first predetermined level.” However, as mentioned above in connection with claim 17, Bass discloses admitting the broadcast packet before measuring the queue length.

Accordingly, for at least the same reasons as discussed above in connection with claim 17, Applicants submit that neither Bonomi nor Bass, neither alone nor in combination, teaches, shows or suggests the limitation of “deleting at least some of the broadcast packets before admission to the ingress queue if the measure of the length of the at least one ingress queue rises above a first predetermined level.” Therefore, Applicants submit that a prima facie case

of obviousness has not been established with respect to claim 25 and that the obviousness rejection of claim 25 over the prior art should be withdrawn.

V. Dependent Claims

Dependent claims 10, 11, 14, 18, 20, 21, 23, 24, and 26-28 all depend from and incorporate all the limitations of one of independent claims 9, 17 or 25. Accordingly, it is respectfully submitted that dependent claims 10, 11, 14, 18, 20, 21, 23, 24, and 26-28 are also allowable for at least the same reasons that independent claims 9, 17 and 25 are allowable, as well as additional reasons. Therefore, the examiner's rejection of dependent claims 10, 11, 14, 18, 20, 21, 23, 24, and 26-28 should also be withdrawn.

VI. Conclusion

For all of the foregoing reasons, it is respectfully submitted the applicant has made a patentable contribution to the art. Favorable reconsideration and allowance of this application is therefore respectfully requested. In the event applicant has inadvertently overlooked the need for an extension of time or payment of an additional fee, the applicant conditionally petitions therefore, and authorizes any fee deficiency to be charged to deposit account 13-0014.

Respectfully submitted,

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